

Ship 15-3-20 AFT ONLY

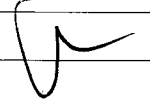
Work Order ID 129569

\*129569\*

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February-17-15 7:36:22 AM

Item ID: D3391-025 Accept \*N9000040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Aft Tube Assembly  
 Start Date: 2/17/15 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 2/27/15 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan:  Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D3391    | I            |

100 0.00  
 \*100\* MORI SEIKI CNC LATHE LARGE  
 Mori Seiki Memo 0.00  
 Mori Seiki CNC Lathe Large Turn as per Folio FA599 Rev: AA & Dwg D3391 Rev: H  
 \*\*\*ensure steady rest is turning true\*\*\*  
 \*\*\*\*REMOVE STEADY REST AND MACHINIG MARKS\*\*\*\*

1 /   
 mm L  
 15/02/20

110 0.00  
 \*110\* QC2- Inspect parts off machine FAI/FAIB  
 QC Memo 0.00  
 Quality Control

1 /   
 mm L  
 15/02/24



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|                       |                   |                   |                     |              |                      |              |
|-----------------------|-------------------|-------------------|---------------------|--------------|----------------------|--------------|
| <b>Item ID:</b>       | D3391-025         | <b>Accept</b>     | <b>*N900040100*</b> | <b>Setup</b> | <b>Start</b>         | <b>*NS1*</b> |
| <b>Revision ID:</b>   |                   |                   |                     |              |                      |              |
| <b>Item Name:</b>     | Aft Tube Assembly |                   |                     |              | <b>Stop</b>          | <b>*NS2*</b> |
| <b>Start Date:</b>    | 2/17/15           | <b>Start Qty:</b> | 1.00                | <b>*1*</b>   | <b>Cust Item ID:</b> |              |
| <b>Required Date:</b> | 2/27/15           | <b>Req'd Qty:</b> | 1.00                | <b>*1*</b>   | <b>Customer:</b>     |              |
| <b>Reference:</b>     |                   |                   |                     |              |                      |              |

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Run** **Start** **\*NR1\***  
                  **QC:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **SPC (Y/N):** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Stop** **\*NR2\***

[illegible]

# Work Order ID 129569

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Item ID: D3391-025 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Aft Tube Assembly  
 Start Date: 2/17/15 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 2/27/15 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                                      | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp    |
|--------------------------------|---------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------|
| 140                            | QC8- Inspect parts - second check                             | 0.00                 |         |        |              | 1             | 0             |                  | DAS<br>14<br>9-89 |
| *140*                          |                                                               |                      |         |        |              |               |               |                  |                   |
| QC                             | Memo                                                          | 0.00                 |         |        |              |               |               |                  |                   |
| Quality Control                | ***INSPECT INSIDE BORE***                                     |                      |         |        |              |               |               |                  | 15/03/15          |
| 150                            |                                                               | 0.00                 |         |        |              |               |               |                  |                   |
| *150*                          | Skidtubes                                                     |                      |         |        |              |               |               |                  |                   |
| Skidtubes                      | Memo                                                          | 0.00                 |         |        |              |               |               |                  | 15-3-16           |
| Skidtubes                      | 1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803 |                      |         |        |              |               |               |                  |                   |
| 160                            |                                                               | 0.00                 |         |        |              |               |               |                  |                   |
| *160*                          | BENDING MACHINE - SKIDTUBES                                   |                      |         |        |              |               |               |                  |                   |
| CNC Bend 1                     | Memo                                                          | 0.00                 |         |        |              |               |               |                  |                   |
| CNC Delta 100 Bender           | Form as per Dwg D3391 Using Bend Prog 3391025                 |                      |         |        |              |               |               |                  | 15-3-16           |

H-4.270"

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**Accept**

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 2/17/15      **Start Qty:** 1.00      **\*1\***

**Cust Item ID:**

**Required Date:** 2/27/15      **Req'd Qty:** 1.00      **\* 1 \***

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

### Operation Description

### Set Up/ Run Hours

| Tool ID | Tool # | Plan Code |
|---------|--------|-----------|
|---------|--------|-----------|

| Accept Qty | Reject Qty | Reject Number | Insp. Stamp | DAS<br>18<br>9-09 |
|------------|------------|---------------|-------------|-------------------|
|------------|------------|---------------|-------------|-------------------|

170

QC5- Inspect part completeness to step on W/O

0.00

**\*170\***

QC

## Memo

0.00

## Quality Control



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Item ID: D3391-025

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Aft Tube Assembly

Start Date: 2/17/15 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 2/27/15 Req'd Qty: 1.00 \*1\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

180

0.00

\*180\*

Skidtubes

Skidtubes

Memo

0.00

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217  
Wearplate Jig.

\*\*\*\*Do Not Open To Finished Size\*\*\*\*

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2  
previously drilled aft wearplate holes.

5-Open wearplate holes to 0.297" and c'bore as per dwg D3391

6-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391.

7-Deburr

8- Scribe batch # on fwd end 15-3-16

15-3-16

15-3-16

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Item ID: D3391-025 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Aft Tube Assembly  
 Start Date: 2/17/15 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 2/27/15 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

|                 |                                               |      |  |  |  |  |  |  |  |
|-----------------|-----------------------------------------------|------|--|--|--|--|--|--|--|
| 190             | QC5- Inspect part completeness to step on W/O | 0.00 |  |  |  |  |  |  |  |
| <b>*190*</b>    |                                               |      |  |  |  |  |  |  |  |
| QC              | Memo                                          | 0.00 |  |  |  |  |  |  |  |
| Quality Control |                                               |      |  |  |  |  |  |  |  |

① 15-03-16 DAS 9-89

|                |                                         |      |  |  |  |  |  |  |  |
|----------------|-----------------------------------------|------|--|--|--|--|--|--|--|
| 200            | Chemical Conversion Coat per QSI005 4.1 | 0.00 |  |  |  |  |  |  |  |
| <b>*200*</b>   |                                         |      |  |  |  |  |  |  |  |
| HandFinish     | Memo                                    | 0.00 |  |  |  |  |  |  |  |
| Hand Finishing |                                         |      |  |  |  |  |  |  |  |

1 Ø 15-3-16

|                 |                                      |      |  |  |  |  |  |  |  |
|-----------------|--------------------------------------|------|--|--|--|--|--|--|--|
| 210             | QC7-Inspect Chemical Conversion Coat | 0.00 |  |  |  |  |  |  |  |
| <b>*210*</b>    |                                      |      |  |  |  |  |  |  |  |
| QC              | Memo                                 | 0.00 |  |  |  |  |  |  |  |
| Quality Control |                                      |      |  |  |  |  |  |  |  |

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Item ID: D3391-025 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Aft Tube Assembly  
 Start Date: 2/17/15 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 2/27/15 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                                                                                                      | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 220                            | Skidtubes                                                                                                                                     | 0.00                 |         |        |              |               |               |                  |                |
| <b>*220*</b>                   |                                                                                                                                               |                      |         |        |              |               |               |                  |                |
| Skidtubes                      | Memo                                                                                                                                          | 0.00                 |         |        |              |               |               |                  |                |
| Skidtubes                      | 1- Instal spacers as per dwg D3391<br>A/R Magnabond 6398 Batch: <u>M129208</u><br>exp. date: <u>15-3-28</u><br>cure time 12hrs as per QSI0015 |                      |         |        |              |               |               |                  |                |
|                                | 2- Grind crossbolts flush                                                                                                                     |                      |         |        |              |               |               |                  |                |
|                                | 3- Back drill using #9 drill                                                                                                                  |                      |         |        |              |               |               |                  |                |
|                                | 4- Touchup Magnabond                                                                                                                          |                      |         |        |              |               |               |                  |                |
|                                | 5- Deburr                                                                                                                                     |                      |         |        |              |               |               |                  |                |
| 230                            | QC5- Inspect part completeness to step on W/O                                                                                                 | 0.00                 |         |        |              |               |               |                  |                |
| <b>*230*</b>                   |                                                                                                                                               |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                                                                                                                          | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                                                                                                                               |                      |         |        |              |               |               |                  |                |

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Item ID: D3391-025 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Aft Tube Assembly  
 Start Date: 2/17/15 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 2/27/15 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                                       | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|----------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 235                            | Pressure Wash per OSI005 4.3                                   | 0.00                 |         |        |              |               |               |                  |                |
| *235*                          |                                                                |                      |         |        |              |               |               |                  |                |
| HandFinish                     | Memo                                                           | 0.00                 |         |        |              |               |               |                  |                |
| Hand Finishing                 | AND REALODINE AS PER PAR09-043                                 |                      |         |        |              |               |               |                  |                |
| 240                            | White Gloss(Ref:4.3.5.1) per OSI005 4.3-Alum                   | 0.00                 |         |        |              |               |               |                  |                |
| *240*                          | M 124808.                                                      |                      |         |        |              |               |               |                  |                |
| Powdercoat                     | Memo                                                           | 0.00                 |         |        |              |               |               |                  |                |
| Powder Coating                 | START TIME: 3:15<br>OVEN TEMPERATURE: 320<br>FINISH TIME: 8:45 |                      |         |        |              |               |               |                  |                |
| 250                            | QC3- Inspect Part Finish                                       | 0.00                 |         |        |              |               |               |                  |                |
| *250*                          |                                                                |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                                           | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                                                |                      |         |        |              |               |               |                  |                |

DAS  
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# Work Order ID 129569

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Item ID: D3391-025 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Aft Tube Assembly  
 Start Date: 2/17/15 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 2/27/15 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

|     |               |      |  |  |  |  |  |  |  |
|-----|---------------|------|--|--|--|--|--|--|--|
| 260 | HandFinishing | 0.00 |  |  |  |  |  |  |  |
|-----|---------------|------|--|--|--|--|--|--|--|

\*260\*

HandFinish

Hand Finishing

Memo

1-Install inserts as per Dwg D3391  
 2-Install Aft Cap as per Dwg D3391  
 A/ R Sikaflex-241/-291 11/13/15  
 Sikaflex expiry date: 12/1/16  
 3- INSTALL WEARPLATES AS PER DWG

0.00

|     |                                               |      |  |  |  |  |  |  |  |
|-----|-----------------------------------------------|------|--|--|--|--|--|--|--|
| 270 | QC5- Inspect part completeness to step on W/O | 0.00 |  |  |  |  |  |  |  |
|-----|-----------------------------------------------|------|--|--|--|--|--|--|--|

\*270\*

QC

Quality Control

Memo

0.00

|     |                                                        |      |  |  |  |  |  |  |  |
|-----|--------------------------------------------------------|------|--|--|--|--|--|--|--|
| 280 | Identify as per dwg & Stock Location: <u>Packaging</u> | 0.00 |  |  |  |  |  |  |  |
|-----|--------------------------------------------------------|------|--|--|--|--|--|--|--|

\*280\*

Packaging

Packaging

Memo

0.00

1x d 15/03/18

1 38  
9-89

15-03-18

1x d 15/03/18

**Work Order ID 129569**

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Item ID: D3391-025 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Aft Tube Assembly  
Start Date: 2/17/15 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 2/27/15 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 290                            | QC21- Final Inspection - Work Order Release | 0.00                 |         |        |              |               |               |                  |                |
| <b>*290*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                        | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                             |                      |         |        |              |               |               |                  |                |

MLJ 15-03-20  
MLJ 1503-20

# Picklist Print

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Page 1

Work Order ID: 129569

**\*129569\***

Parent Item: D3391-025

**\*D3391-025\***

Parent Item Name: Aft Tube Assembly

Start Date: 2/17/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC  
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM  
 IPP rev D 07.03.20 revF dwg EC  
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD  
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC  
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H  
 11.11.14 AS PER REV.I DD verified by:JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

|                    |  |              |    |  |  |     |      |         |           |   |  |              |  |
|--------------------|--|--------------|----|--|--|-----|------|---------|-----------|---|--|--------------|--|
| D4095-047          |  | Manufactured | No |  |  | 260 | Each | 22.0000 | 1         | 1 |  |              |  |
| <b>*D4095-047*</b> |  |              |    |  |  |     |      |         | <b>**</b> |   |  | all 15/03/18 |  |
| Wearpad Aft        |  |              |    |  |  |     |      |         |           |   |  |              |  |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| FP001    | 22      |          |
| 116100   | 20      |          |
| 120523   | 2       |          |

|                    |  |              |    |  |  |     |      |         |           |   |  |              |  |
|--------------------|--|--------------|----|--|--|-----|------|---------|-----------|---|--|--------------|--|
| D4095-049          |  | Manufactured | No |  |  | 260 | Each | 48.0000 | 1         | 1 |  |              |  |
| <b>*D4095-049*</b> |  |              |    |  |  |     |      |         | <b>**</b> |   |  | all 15/03/18 |  |
| Wearpad Aft        |  |              |    |  |  |     |      |         |           |   |  |              |  |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| FP001    | 48      |          |
| 116084   | 12      |          |
| 126331   | 36      |          |

|                    |  |              |    |  |  |     |      |         |           |   |  |  |  |
|--------------------|--|--------------|----|--|--|-----|------|---------|-----------|---|--|--|--|
| D6014-090          |  | Manufactured | No |  |  | 100 | Each | 48.0000 | 1         | 1 |  |  |  |
| <b>*D6014-090*</b> |  |              |    |  |  |     |      |         | <b>**</b> |   |  |  |  |
| ALUMINUM EXTRUSION |  |              |    |  |  |     |      |         |           |   |  |  |  |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| LG003    | 48      |          |
| 79742    | 13      |          |
| 86063    | 35      |          |

1 mmk 15/02/20

# Picklist Print

February-17-15 7:36:22 AM

Work Order ID: 129569

**\*129569\***

Parent Item: D3391-025

**\*D3391-025\***

Parent Item Name: Aft Tube Assembly

Start Date: 2/17/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

230 Each

64.0000

4

**\*D3670-4-200\***

Bushing

\*\*

*15-3-16*

Location

Loc Qty

Loc Code

FG

10

87709

10

LG001

54

109108

54

D2646

Manufactured No

270 Each

76.0000

**\*D2646\***

Aft Cap

\*\*

*15/03/18*

Location

Loc Qty

Loc Code

FG

4

85848

2

90495

2

FP001

72

103306

1

114495

6

127924

24

128761

41

D3672-1

Manufactured No

270 Each

978.0000

2

**\*D3672-1\***

Washer, Phenolic

\*\*

*15/03/18*

Location

Loc Qty

Loc Code

FG

10

85222

10

FP001

280

113581

280

ST055

688

120116

188

127322

500

# Picklist Print

February-17-15 7:36:22 AM

Page 3

Work Order ID: 129569

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

**\*129569\***

**\*D3391-025\***

Start Date: 2/17/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130 AELS4-1032-130 Purchased

No 260 Each 2,824.000 14 14

**\*AI S4-1032-130\***

Rivnut

**\*\***

all 15/03/15

Location

Loc Qty

Loc Code

|         |      |     |
|---------|------|-----|
| CA      | 1617 |     |
| M128649 | 1617 |     |
| FP001   | 148  |     |
| M128649 | 148  | x14 |
| st549   | 1059 |     |
| 117717  | 10   |     |
| M128649 | 1049 |     |

ALS4-1032-225 AELS8-1032-225 Purchased

No 270 Each 163.0000 8 8

**\*AI S4-1032-225\***

Rivnut

**\*\***

all 15/03/15

Location

Loc Qty

Loc Code

|         |     |  |
|---------|-----|--|
| FG      | 120 |  |
| M127028 | 120 |  |
| FP001   | 43  |  |
| M131067 | 43  |  |

M131582

x8

AN3C4A Purchased

No 270 Each 1,554.000 6 6

**\*AN3C4A\***

Bolt

**\*\***

all 15/03/15

Location

Loc Qty

Loc Code

|         |      |  |
|---------|------|--|
| FG      | 20   |  |
| 122814  | 20   |  |
| ST338a  | 1400 |  |
| M131320 | 400  |  |
| M131420 | 1000 |  |
| ST350   | 134  |  |
| M130716 | 134  |  |

M131673

x6

# Picklist Print

February-17-15 7:36:22 AM

Page 4

Work Order ID: 129569

**\*129569\***

Parent Item: D3391-025

**\*D3391-025\***

Parent Item Name: Aft Tube Assembly

Start Date: 2/17/15

Required Date: 2/27/15

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased

No

270

Each

1,089.000

4

4

**\*AN3C5A\***

Bolt

**\*\***

all 15/03/15

Location

Loc Qty

Loc Code

FG

5

122800

5

ST338a

662

M130770

146

M130851

16

M131320

500

x 4

ST350

422

M131420

422

NAS1149C0332R

Purchased

No

270

Each

3,891.000

10

10

**\*NAS1149C0332R\***

WASHER

**\*\***

all 15/03/15

Location

Loc Qty

Loc Code

FP001

2140

m130325

2140

M131612

x 10

GA

2

125654

2

ST271

1749

125654

44

m130466

15

m131340

1690



|                                          |               |                     |         |
|------------------------------------------|---------------|---------------------|---------|
| <b>DART AEROSPACE LTD</b>                |               | <b>Work Order:</b>  | 17956A  |
| <b>Description:</b> Float Skidtube (412) |               | <b>Part Number:</b> | D3391-3 |
| <b>Inspection Dwg:</b> D3391             | <b>Rev:</b> I | <b>Page 1 of 1</b>  |         |

### FIRST ARTICLE INSPECTION CHECKLIST

| Drawing Dimension   | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|---------------------|-----------|------------------|--------|--------|----------------------|----------|
| Lathe Section       |           |                  |        |        |                      |          |
| 14.000              | +/-0.010  | 14.00            | ✓      |        | tape                 | LG-11    |
| 3.500               | +/-0.010  | 3.505            | ✓      |        | vern                 | CNC-08   |
| Ø3.200              | +/-0.010  | 3.199            | ✓      |        | ↓                    |          |
| Ø3.750              | +/-0.010  | 3.750            | ✓      |        |                      |          |
| 30° x 0.060 chamfer | +/-0.010  | 30° x 0.060      | ✓      |        |                      |          |
| 88.93               | +/-0.030  | 88.93            | ✓      |        | tape                 | LG-11    |

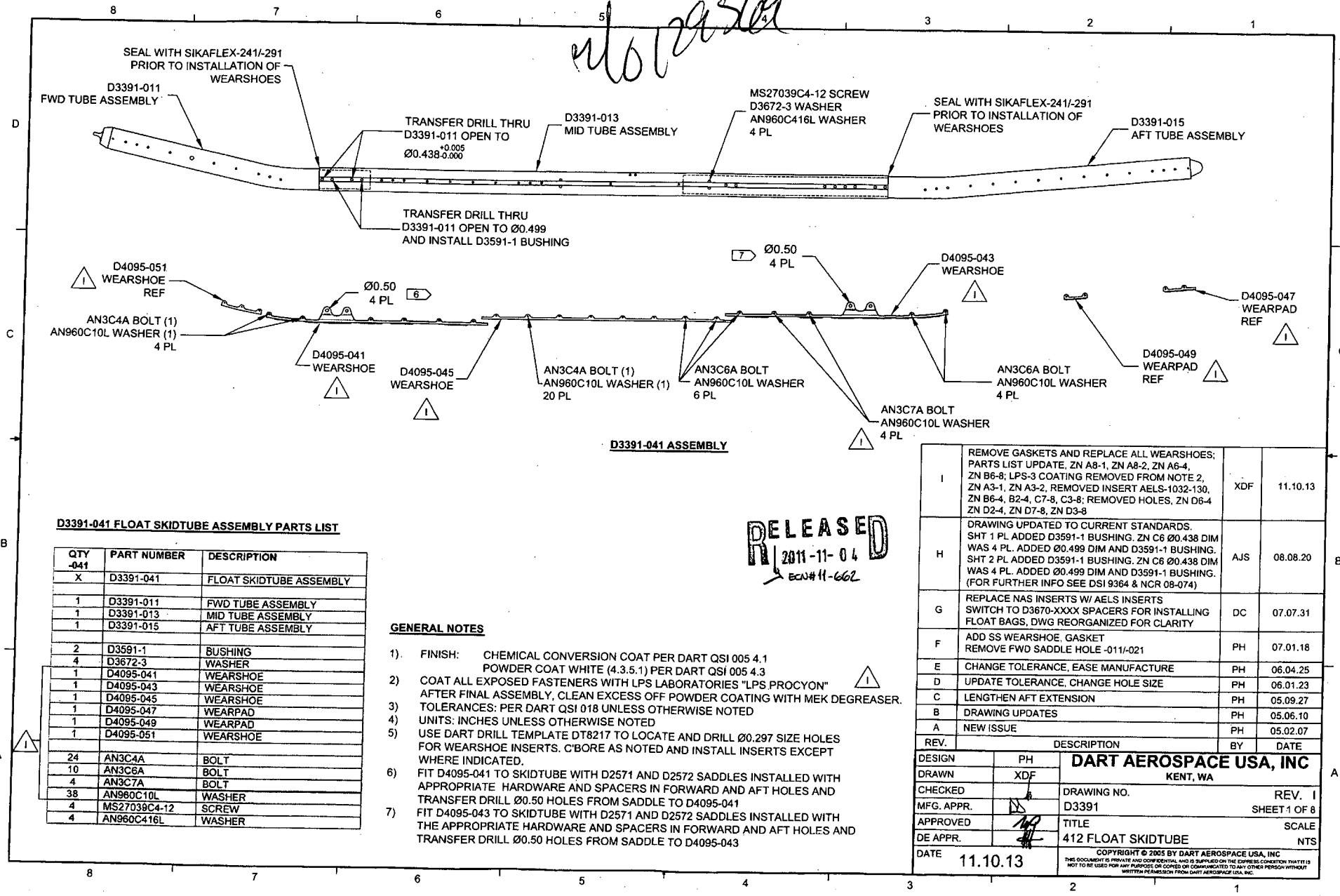
|                     |      |              |          |
|---------------------|------|--------------|----------|
| <b>Measured by:</b> | mm L | <b>Date:</b> | 15/02/23 |
| <b>Audited by:</b>  | 9    | <b>Date:</b> | 15/02/25 |

|              |               |        |   |  |      |        |
|--------------|---------------|--------|---|--|------|--------|
| HAAS Section |               |        |   |  |      |        |
| 1.526        | +0.000/-0.030 | 1.516  | ✓ |  | Vern | FK-04  |
| 7.500        | +/-0.010      | 7.496  | ✓ |  | "    | FK-02  |
| 27.750       | +/-0.010      | 27.750 | ✓ |  | Tape | FK-05  |
| 31.750       | +/-0.010      | 31.750 | ✓ |  | Tape | FK-05  |
| 35.250       | +/-0.010      | 35.250 | ✓ |  | "    | "      |
| 3.300        | +/-0.010      | 3.305  | ✓ |  | Vern | CNC-02 |
| 0.200        | +/-0.010      | .201   | ✓ |  | "    | "      |
| 3.520        | +/-0.010      | 3.524  | ✓ |  | "    | "      |
| 0.687        | +0.010/-0.000 | .689   | ✓ |  | "    | "      |
| R0.062       | +/-0.010      | .062   | ✓ |  | R-G  |        |
| Ø0.484       | +0.005/-0.001 | .486   | ✓ |  | Vern | FK-04  |

|                     |     |              |          |
|---------------------|-----|--------------|----------|
| <b>Measured by:</b> | FK  | <b>Date:</b> | 15/03/15 |
| <b>Audited by:</b>  | DAS | <b>Date:</b> | 15/03/15 |

| Rev | Date     | Change                                     | Revised by | Approved |
|-----|----------|--------------------------------------------|------------|----------|
| A   | 06.04.24 | New Issue                                  | KJ/JLM     |          |
| B   | 06.06.19 | Dwg revision update                        | KJ/JLM     |          |
| C   | 07.04.20 | Ø0.208 dimension removed                   | KJ/JLM     |          |
| D   | 07.09.06 | 0.400 dimension removed                    | KJ/JLM     |          |
| E   | 07.11.23 | Dwg Rev. updated                           | KJ/EC/DD   |          |
| F   | 09.04.27 | Dimensions updated per Rev H and NCR09-028 | KJ/JLM     |          |
| G   | 09.11.16 | Dimension 0.200 removed                    | KJ         |          |
| H   | 11.06.21 | Dimension 44.995 removed                   | KJ         |          |
| I   | 12.05.15 | Dwg Rev updated                            | KJ         |          |
| J   | 12.05.23 | Dimension updated                          | KJ         |          |
| K   | 12.10.15 | 88.93 dimension removed                    | KJ         |          |
| L   | 12.11.28 | 88.93 dimension added                      | KJ         |          |

*not used*



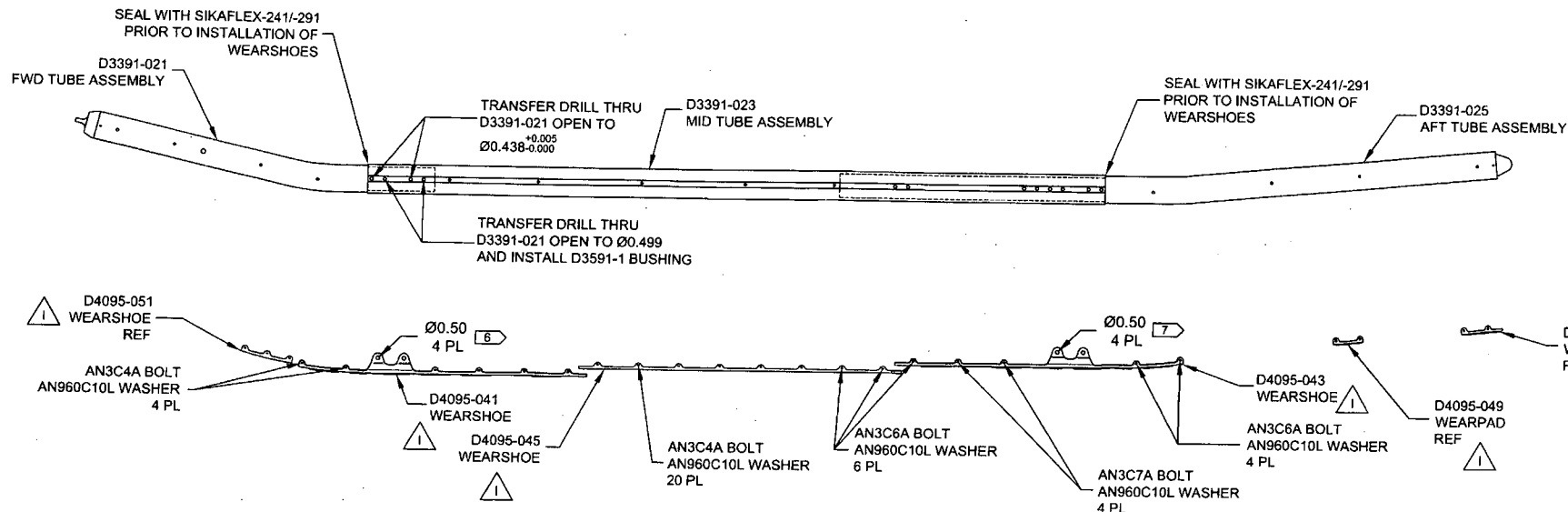
**D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST**

| QTY | PART NUMBER  | DESCRIPTION             |
|-----|--------------|-------------------------|
| -41 |              |                         |
| X   | D3391-041    | Float Skidtube Assembly |
| 1   | D3391-011    | FWD Tube Assembly       |
| 1   | D3391-013    | MID Tube Assembly       |
| 1   | D3391-015    | AFT Tube Assembly       |
| 2   | D3591-1      | Bushing                 |
| 4   | D3672-3      | Washer                  |
| 1   | D4095-041    | Wearshoe                |
| 1   | D4095-043    | Wearshoe                |
| 1   | D4095-045    | Wearshoe                |
| 1   | D4095-047    | Wearpad                 |
| 1   | D4095-049    | Wearpad                 |
| 1   | D4095-051    | Wearshoe                |
| 24  | AN3C4A       | Bolt                    |
| 10  | AN3C6A       | Bolt                    |
| 4   | AN3C7A       | Bolt                    |
| 38  | AN960C10L    | Washer                  |
| 4   | MS27039C4-12 | Screw                   |
| 4   | AN960C416L   | Washer                  |

**GENERAL NOTES**

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE D78217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- 7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

|            |                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                     |              |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| I          | REMOVE GASKETS AND REPLACE ALL WEARSHOES; PARTS LIST UPDATE. ZN A8-1, ZN A8-2, ZN A6-4, ZN B6-8; LPS-3 COATING REMOVED FROM NOTE 2, ZN A3-1, ZN A3-2, REMOVED INSERT AELES-1032-130, ZN B6-4, B2-4, C7-8, C3-8; REMOVED HOLES, ZN D8-4 ZN D2-4, ZN D7-8, ZN D3-8                     | XDF                                                                                                                                                                                                                                                                                 | 11.10.13     |
| H          | DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074) | AJS                                                                                                                                                                                                                                                                                 | 08.08.20     |
| G          | REPLACE NAS INSERTS W/ AELES INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY                                                                                                                                                             | DC                                                                                                                                                                                                                                                                                  | 07.07.31     |
| F          | ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021                                                                                                                                                                                                                             | PH                                                                                                                                                                                                                                                                                  | 07.01.18     |
| E          | CHANGE TOLERANCE, EASE MANUFACTURE                                                                                                                                                                                                                                                   | PH                                                                                                                                                                                                                                                                                  | 06.04.25     |
| D          | UPDATE TOLERANCE, CHANGE HOLE SIZE                                                                                                                                                                                                                                                   | PH                                                                                                                                                                                                                                                                                  | 06.01.23     |
| C          | LENGTHEN AFT EXTENSION                                                                                                                                                                                                                                                               | PH                                                                                                                                                                                                                                                                                  | 05.09.27     |
| B          | DRAWING UPDATES                                                                                                                                                                                                                                                                      | PH                                                                                                                                                                                                                                                                                  | 05.06.10     |
| A          | NEW ISSUE                                                                                                                                                                                                                                                                            | PH                                                                                                                                                                                                                                                                                  | 05.02.07     |
| REV.       | DESCRIPTION                                                                                                                                                                                                                                                                          | BY                                                                                                                                                                                                                                                                                  | DATE         |
| DESIGN     | PH                                                                                                                                                                                                                                                                                   | <b>DART AEROSPACE USA, INC</b><br>KENT, WA                                                                                                                                                                                                                                          |              |
| DRAWN      | XDF                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                     |              |
| CHECKED    |                                                                                                                                                                                                                                                                                      | DRAWING NO. D3391                                                                                                                                                                                                                                                                   | REV. I       |
| MFG. APPR. |                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                     | SHEET 1 OF 8 |
| APPROVED   |                                                                                                                                                                                                                                                                                      | TITLE                                                                                                                                                                                                                                                                               | SCALE        |
| DE APPR.   |                                                                                                                                                                                                                                                                                      | 412 FLOAT SKIDTUBE                                                                                                                                                                                                                                                                  | NTS          |
| DATE       | 11.10.13                                                                                                                                                                                                                                                                             | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |              |



**D3391-043 ASSEMBLY**

**D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST**

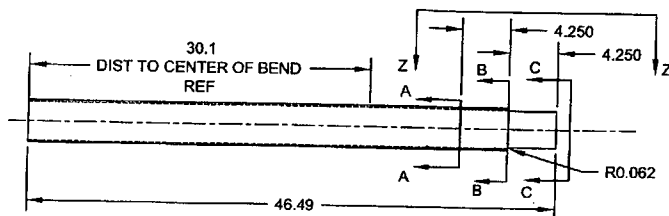
| QTY<br>-043 | PART NUMBER | DESCRIPTION             |
|-------------|-------------|-------------------------|
| X           | D3391-043   | FLOAT SKIDTUBE ASSEMBLY |
| 1           | D3391-021   | FWD TUBE ASSEMBLY       |
| 1           | D3391-023   | MID TUBE ASSEMBLY       |
| 1           | D3391-025   | AFT TUBE ASSEMBLY       |
| 2           | D3591-1     | BUSHING                 |
| 1           | D4095-041   | WEARSHOE                |
| 1           | D4095-043   | WEARSHOE                |
| 1           | D4095-045   | WEARSHOE                |
| 1           | D4095-047   | WEARSHOE                |
| 1           | D4095-049   | WEARPAD                 |
| 1           | D4095-051   | WEARSHOE                |
| 24          | AN3C4A      | BOLT                    |
| 10          | AN3C6A      | BOLT                    |
| 4           | AN3C7A      | BOLT                    |
| 38          | AN960C10L   | WASHER                  |

**GENERAL NOTES**

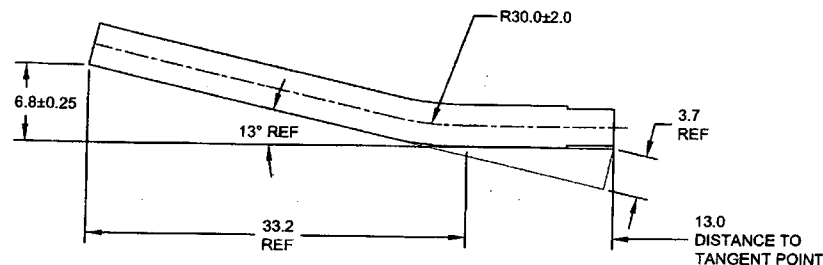
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON"
- 3) AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. CBORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 7) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- 8) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

**RELEASED**  
2011-11-04

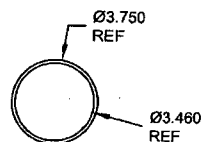
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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                               | PH                                                                                    | <b>DART AEROSPACE USA, INC</b>              |              |
| DRAWN                                                                                                                                                                                                                                | XDF                                                                                   | KENT, WA                                    |              |
| CHECKED                                                                                                                                                                                                                              |  | DRAWING NO.                                 | REV. 1       |
| MFG. APPR.                                                                                                                                                                                                                           |  | D3391                                       | SHEET 2 OF 8 |
| APPROVED                                                                                                                                                                                                                             |  | TITLE                                       | SCALE        |
| DE APPR.                                                                                                                                                                                                                             |  | 412 FLOAT SKIDTUBE                          | NTS          |
| DATE                                                                                                                                                                                                                                 | 11.10.13                                                                              | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC |              |
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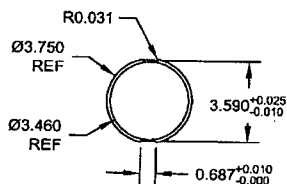
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(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



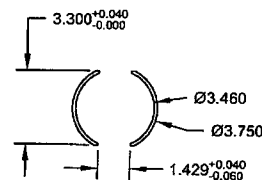
**D3391-011/-021 BENDING DETAIL**  
(MAKE FROM D3391-1)



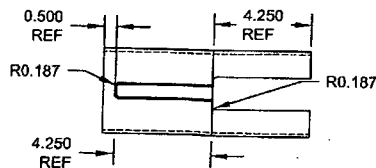
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**SECTION B-B**  
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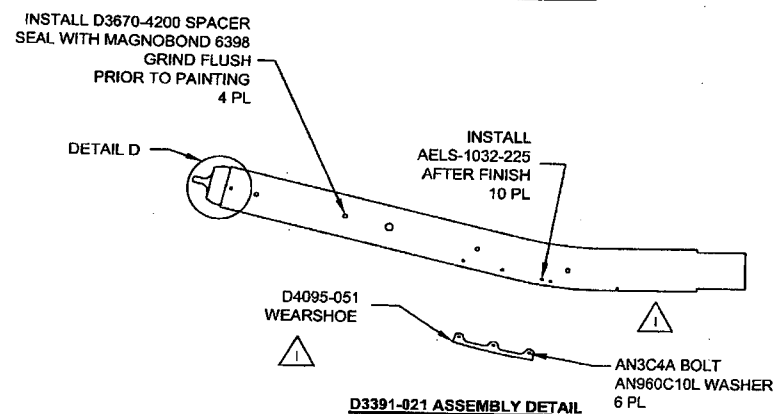
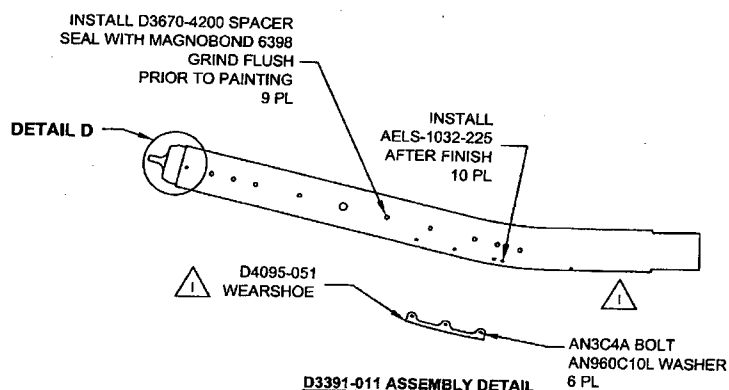
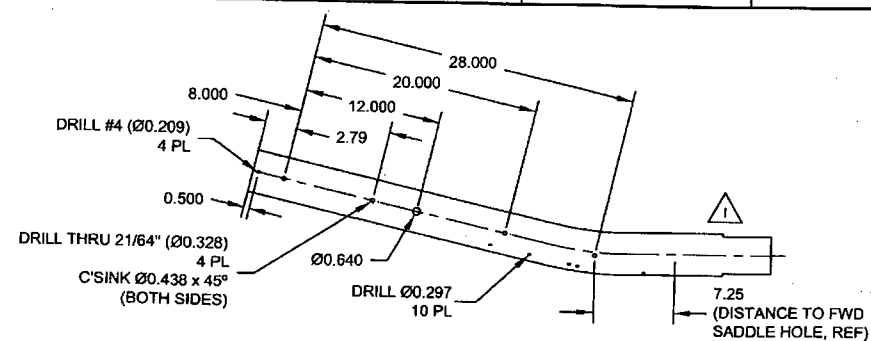
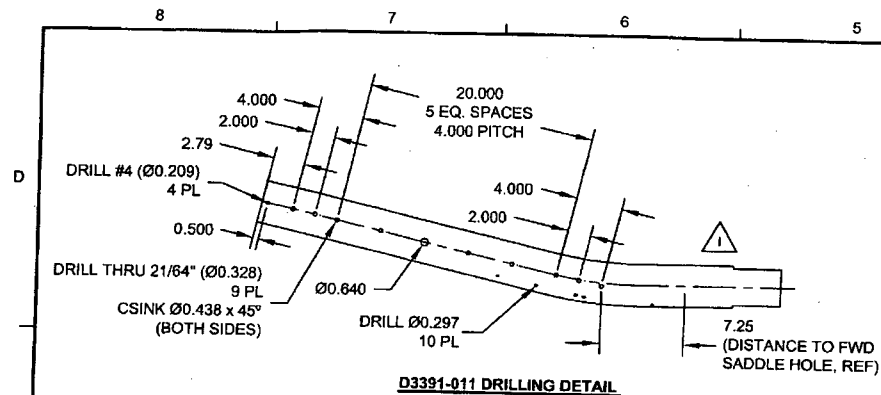
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**VIEW Z-Z**  
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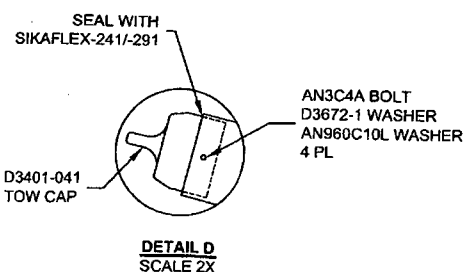
RELEASED  
2011-11-04

|            |          |                                                                                                                                                                                                                                                                                          |        |
|------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| DESIGN     | PH       | <b>DART AEROSPACE USA, INC</b>                                                                                                                                                                                                                                                           |        |
| DRAWN      | XDF      | KENT, WA                                                                                                                                                                                                                                                                                 |        |
| CHECKED    |          | DRAWING NO. D3391                                                                                                                                                                                                                                                                        | REV. 1 |
| MFG. APPR. |          | SHEET 3 OF 8                                                                                                                                                                                                                                                                             |        |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                                    | SCALE  |
| DE APPR.   |          | 412 FLOAT SKIDTUBE                                                                                                                                                                                                                                                                       | NTS    |
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**D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST**

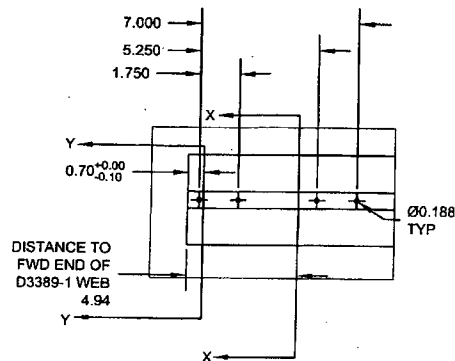
| QTY - 011 | QTY - 021 | PART NUMBER   | DESCRIPTION       |
|-----------|-----------|---------------|-------------------|
| X         | X         | D3391-011     | FWD TUBE ASSEMBLY |
|           |           | D3391-021     | FWD TUBE ASSEMBLY |
| 1         | 1         | D3401-041     | TOW CAP           |
| 9         | 4         | D3670-4200    | SPACER            |
| 4         | 4         | D3672-1       | WASHER            |
| 1         | 1         | D4095-051     | WEARSHOE          |
| 1         | 1         | D6013-047     | FWD TUBE          |
| 10        | 10        | AN3C4A        | BOLT              |
| 10        | 10        | AN960C10L     | WASHER            |
| 10        | 10        | AELS-1032-225 | INSERT            |



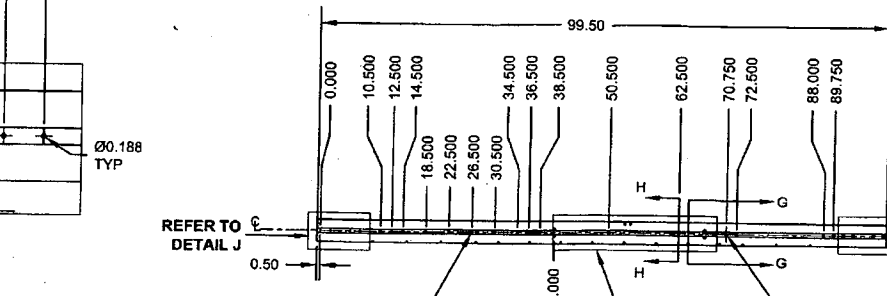
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| DESIGN                                                                                                                                                                                                                              | PH       | <b>DART AEROSPACE USA, INC</b>              |              |
| DRAWN                                                                                                                                                                                                                               | XDF      | KENT, WA                                    |              |
| CHECKED                                                                                                                                                                                                                             |          | DRAWING NO.                                 | REV. 1       |
| MFG. APPR.                                                                                                                                                                                                                          |          | D3391                                       | SHEET 4 OF 8 |
| APPROVED                                                                                                                                                                                                                            |          | TITLE                                       | SCALE        |
| DE APPR.                                                                                                                                                                                                                            |          | 412 FLOAT SKIDTUBE                          | NTS          |
| DATE                                                                                                                                                                                                                                | 11.10.13 | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC |              |
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2011-11-04

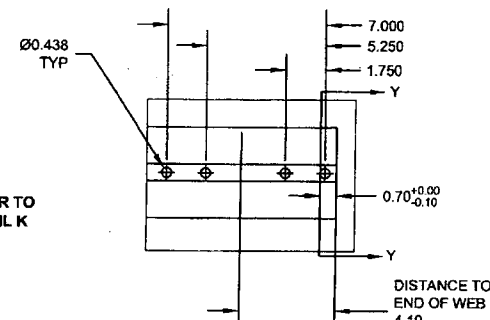
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**DETAIL J**  
SCALE 4X



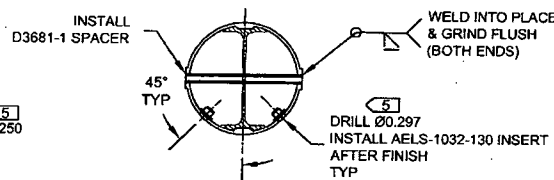
**D3391-013 ASSEMBLY DETAIL**



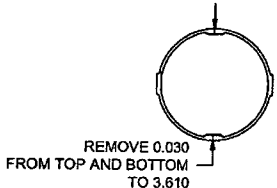
**DETAIL K**  
SCALE 4X



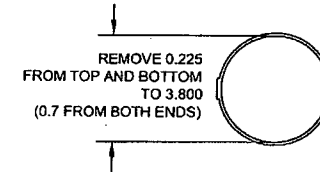
**SECTION G-G**  
SCALE 5X



**SECTION H-H**  
SCALE 5X



**SECTION X-X**  
SCALE 5X



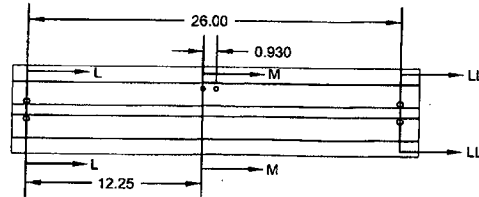
**SECTION Y-Y**  
SCALE 5X

**D3391-013 MID TUBE ASSEMBLY PARTS LIST**

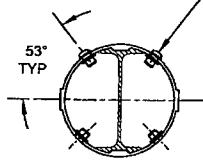
| QTY  | PART NUMBER   | DESCRIPTION       |
|------|---------------|-------------------|
| -013 |               |                   |
| X    | D3391-013     | MID TUBE ASSEMBLY |
| 1    | D2500-1-100   | EXTRUSION         |
| 1    | D3389-1       | WEB               |
| 4    | D3672-1       | WASHER            |
| 4    | D3672-3       | WASHER            |
| 12   | D3681-1       | SPACER            |
| 24   | AELS-1032-130 | INSERT            |
| 4    | ALS4-428-165  | INSERT            |
| 4    | AN960C10L     | WASHER            |
| 4    | AN960C416L    | WASHER            |
| 4    | MS27039C1-09  | SCREW             |
| 4    | MS27039C4-08  | SCREW             |

**D3391-013 MID TUBE ASSEMBLY**

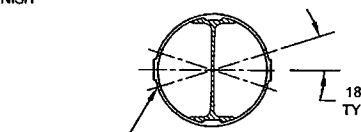
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004



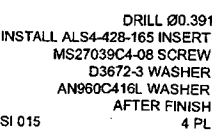
**DETAIL E**  
SCALE NONE



**SECTION M-M**  
SCALE 5X



**SECTION LL-LL**  
SCALE 5X

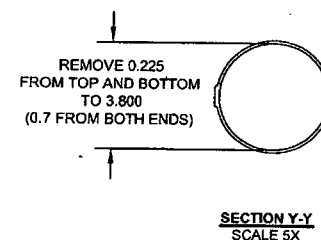
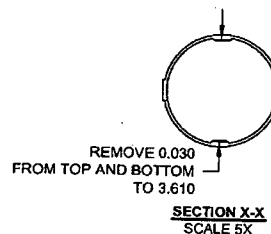
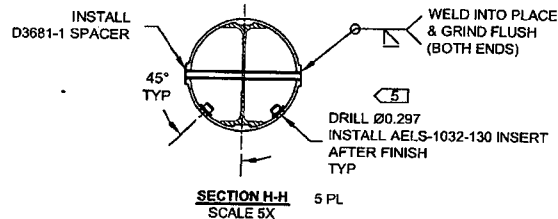
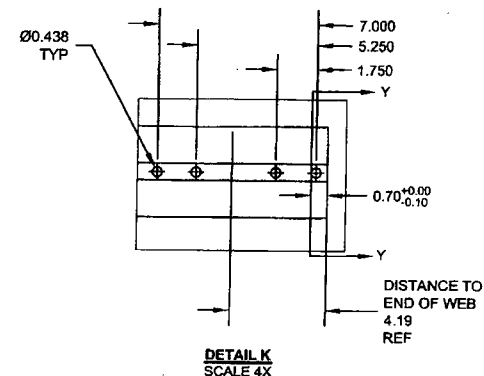
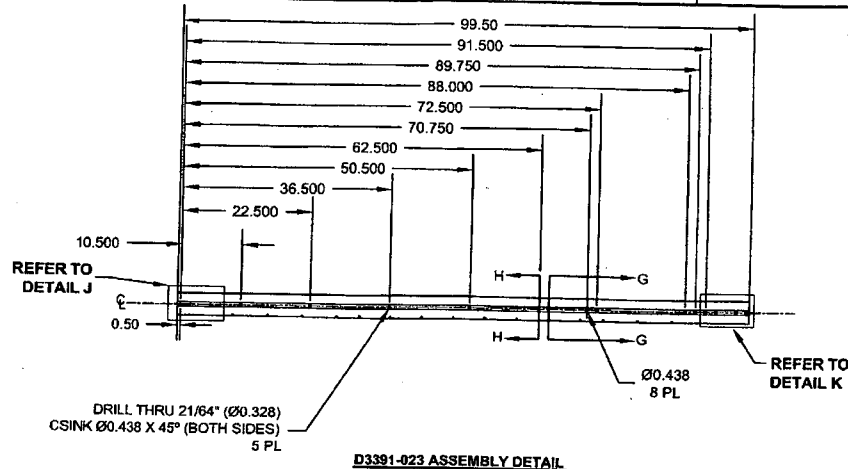
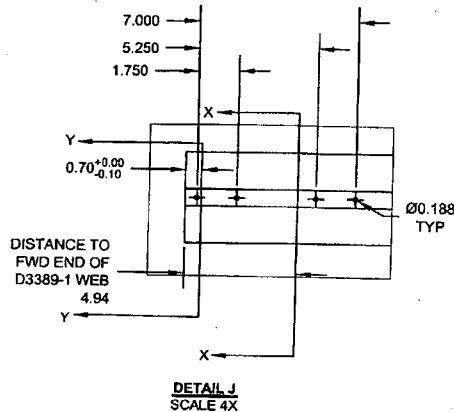


**SECTION L-L**  
SCALE 5X

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2011-11-04

|            |          |                                                                                                                                                                                                                                                                                    |              |
|------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | PH       | <b>DART AEROSPACE USA, INC</b>                                                                                                                                                                                                                                                     |              |
| DRAWN      | XDF      | KENT, WA                                                                                                                                                                                                                                                                           |              |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                                        | REV. 1       |
| MFG. APPR. |          | D3391                                                                                                                                                                                                                                                                              | SHEET 5 OF 8 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                              | SCALE        |
| DE APPR.   |          | 412 FLOAT SKIDTUBE                                                                                                                                                                                                                                                                 | NTS          |
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8 7 6 5 4 3 2 1



**D3391-023 MID TUBE ASSEMBLY PARTS LIST**

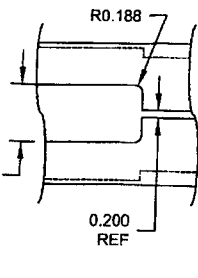
| QTY - 023 | PART NUMBER   | DESCRIPTION       |
|-----------|---------------|-------------------|
| X         | D3391-023     | MID TUBE ASSEMBLY |
| 1         | D2500-1-100   | EXTRUSION         |
| 1         | D3389-1       | WEB               |
| 5         | D3681-1       | SPACER            |
| 20        | AELS-1032-130 | INSERT            |

**D3391-023 MID TUBE ASSEMBLY**

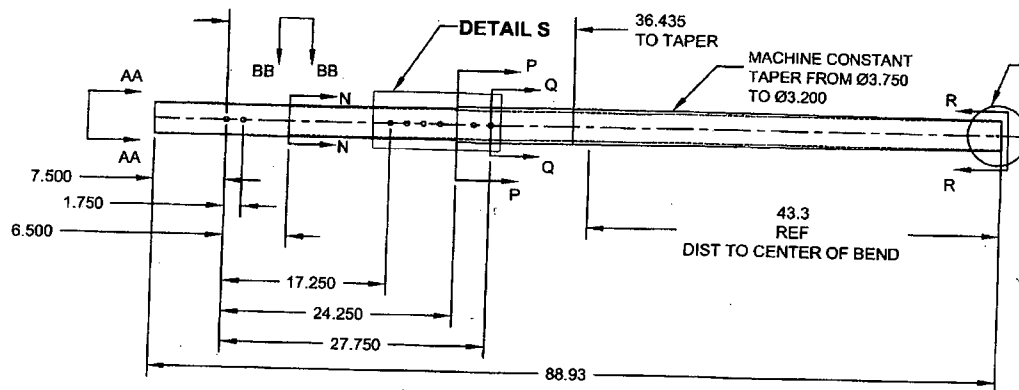
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
- 3) WELDING: PER DART QSI 004

**RELEASED**  
2011-11-04

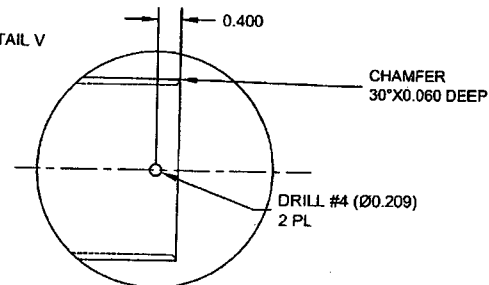
|                                                                                                                                                                                                                                                       |          |                                             |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                                                | PH       | <b>DART AEROSPACE USA, INC</b>              |              |
| DRAWN                                                                                                                                                                                                                                                 | XDF      | KENT, WA                                    |              |
| CHECKED                                                                                                                                                                                                                                               |          | DRAWING NO.                                 | REV. 1       |
| MFG. APPR.                                                                                                                                                                                                                                            |          | D3391                                       | SHEET 6 OF 8 |
| APPROVED                                                                                                                                                                                                                                              |          | TITLE                                       | SCALE        |
| DE APPR.                                                                                                                                                                                                                                              |          | 412 FLOAT SKIDTUBE                          | NTS          |
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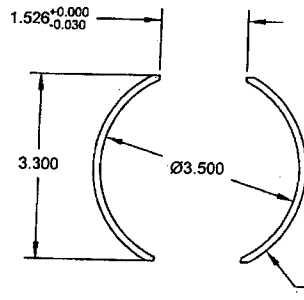
VIEW BB-BB  
SCALE 4X



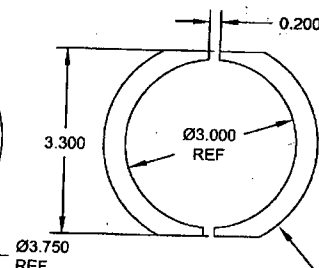
D3391-3 AFT DRILLING AND CUTTING DETAIL  
(MAKE FROM D6014-090 SKIDTUBE MATERIAL)



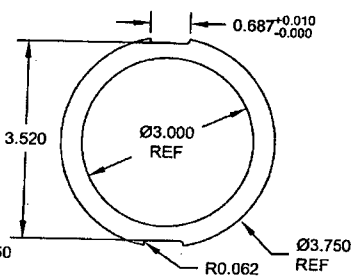
DETAIL V  
SCALE 6X



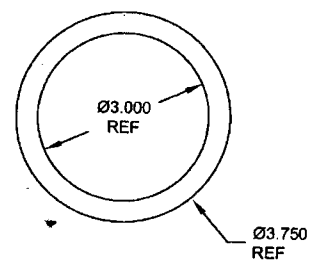
SECTION AA-AA  
SCALE 6X



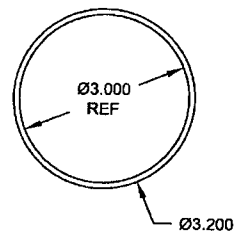
SECTION N-N  
SCALE 6X



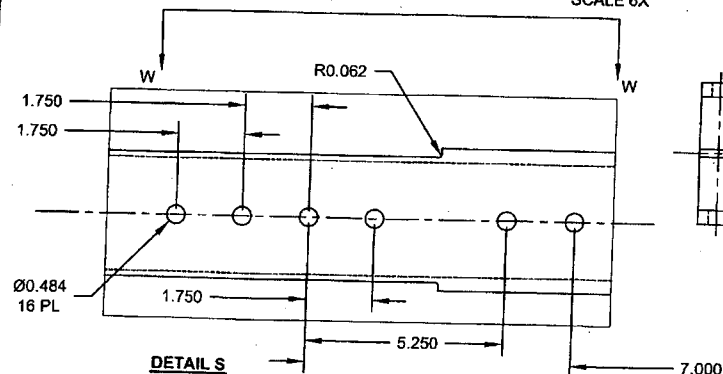
SECTION P-P  
SCALE 6X



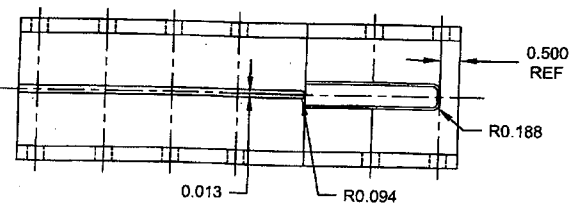
SECTION Q-Q  
SCALE 6X



SECTION R-R  
SCALE 6X



DETAIL S  
SCALE 4X



VIEW W-W  
SCALE 4X

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2011-11-04

|                                                                                                                                                                                                                                     |          |                                             |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------|--------------|
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| DRAWN                                                                                                                                                                                                                               | XDF      | KENT, WA                                    |              |
| CHECKED                                                                                                                                                                                                                             |          | DRAWING NO.                                 | REV. 1       |
| MFG. APPR.                                                                                                                                                                                                                          |          | D3391                                       | SHEET 7 OF 8 |
| APPROVED                                                                                                                                                                                                                            |          | TITLE                                       | SCALE        |
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